

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

After entry of the foregoing amendments, Claims 1-53 are pending in the present application. Claims 1, 2, 7, 10, 11, 21-23, 25, 27, 29, 31-44, 46-48, 50, and 51 are amended without introduction of new matter by the present amendment.

In the outstanding Office Action, the Restriction Requirement mailed October 5, 2004 was withdrawn; the title of the invention was objected to; Claim 3 was rejected under 35 U.S.C. 112, second paragraph; and Claims 1, 2, 4-7, 21-43, 45-57, and 49-53 were rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 6,831,865 to Chang et al. (hereinafter "Chang") in view of U.S. Patent No. 6,091,643 to Kawakami.

Applicant notes, with appreciation, the withdrawal of the restriction requirement and the indication of allowable subject matter.

Regarding the objection to the title, the title is amended in view of the Examiner's comments. Accordingly, Applicant respectfully requests that the objection to the Title be withdrawn.

Regarding the rejection of Claim 3 under 35 U.S.C. 112, second paragraph, that claim is amended in view of the Examiner's comments.<sup>1</sup> Accordingly, Applicant respectfully requests that the rejection of Claim 3 under 35 U.S.C. 112, second paragraph, be withdrawn.

Addressing now the rejection of Claims 1, 2, 4-7, 21-43, 45-47, and 49-53 under 35 U.S.C. 103(a) as unpatentable over Chang in view of Kawakami, that rejection is respectfully traversed.

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<sup>1</sup> For support, see at least Specification, page 14, lines 21-22.

Independent Claim 1 recites a memory cell array in which a block configured to perform a data write/erase operation by a page unit comprises pages; and recites a control unit configured to manage information associated with respective numbers of data write/erase times of the pages. Though they are different in scope, each of independent Claims 22, 25, 27, 31-41, 46, 50, and 53 also recites a data write/erase operation by a page unit; and, except for Claims 41 and 46, recites numbers of data write/erase times of pages.

The Office Action states that Chang teaches a memory cell array in which one block for writing/erasing a page unit comprises pages, but does not teach information associated with respective numbers of data write/erase times of pages. In view of that deficiency, the Office Action states that Kawakami teaches a detection of a number of data erasing operations in a memory array; and further states that it would have been obvious to modify Chang's memory to employ Kawakami's detection operation in order to indicate a state of degradation of Chang's memory. Applicant's traverse the rejection under 35 U.S.C. 103(a) for at least two reasons.

First, Chang does not teach a memory cell array in which a block is configured to write/erase by a page unit. Rather, Chang teaches that "each block contains the minimum number of memory cells that are erased together."<sup>2</sup>

Second, as both Chang and Kawakami determine erase counts per block,<sup>3</sup> the substitution of Kawakami's teachings would not modify Chang's teachings to produce the claimed "information associated with respective numbers of data write/erase times of the *pages*." Further, since an erase count per block would fully indicate the state of degradation of Chang's memory (which performs erase operations per block), one skilled in the art would

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<sup>2</sup> Chang, col. 8, lines 23-41.

<sup>3</sup> Chang, col. 3, lines 30-32; Kawakami, col. 4, lines 26-28.

not modify Chang to determine an erase count per page in order to indicate Chang's memory degradation.

Accordingly, for the above-stated reasons, Applicant respectfully requests that the rejection of Claims 1, 2, 4-7, 21-43, 45-47, and 49-53 under 35 U.S.C. 103(a) as unpatentable over Chang in view of Kawakami be withdrawn.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance, and an early and favorable action to that effect is respectfully requested.

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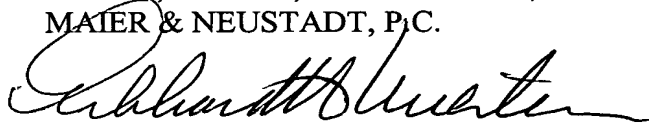
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